



University of South-Eastern Norway

Master of Science in Micro
and Nano System Technology

Department of Microsystems



Electronic
Coast[®] Norway



Campus Vestfold



Master of Science in Micro and Nano System Technology

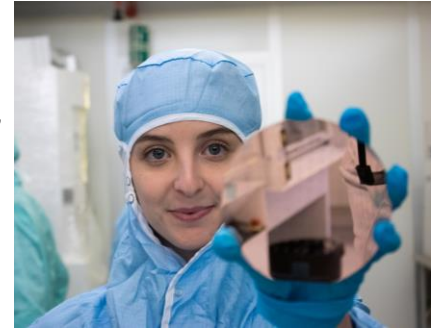
The technology that is found everywhere and is used in a multitude of industries



Focus on how smart components are designed, manufactured, characterized, and how they play together in a complete system

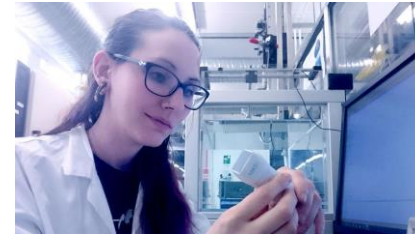
Master of Science in Micro and Nano System Technology

- Interdisciplinary syllabus, including electronics, mathematical modelling, mechanics, material science, and production technology
- English taught programme in an international environment
- Courses includes
 - Assignments and hands on labs
 - Projects with basis from industry/research
- Master project
 - Often in collaboration with industry
 - Can be research-oriented



Master in Micro and Nano Systems Technology - Programme Overview

Semester 1	Electronic Measurement Systems 7.5 ECTS Materials or Semiconductors 7.5 ECTS Applied Mechanics 7.5 ECTS Applied Mathematics 7.5 ECTS
Semester 2	Micofabrication Tech 10 ECTS Measurement & Characterisation 10 ECTS Specialization Course I 10 ECTS
Semester 3	Specialization Course II 10 ECTS Elective Course 10 ECTS Master Project 10 ECTS
Semester 4	Master Project 30 ECTS



Specialization	Micro/nano design
	Micro/nano fabrication
	Electronics for micro/nano systems
	BioMEMS

<https://www.usn.no/english/academics/find-programmes/master-of-science-micro-and-nano-systems-technology/>

Laboratory facilities

Our cleanroom is designed particularly for interdisciplinary research for manufacturing, packaging and characterization of micro- and nanosystems.

MST-Lab comprise three main central laboratories:

- Cleanroom
- BioMEMS laboratory
- Characterization laboratory

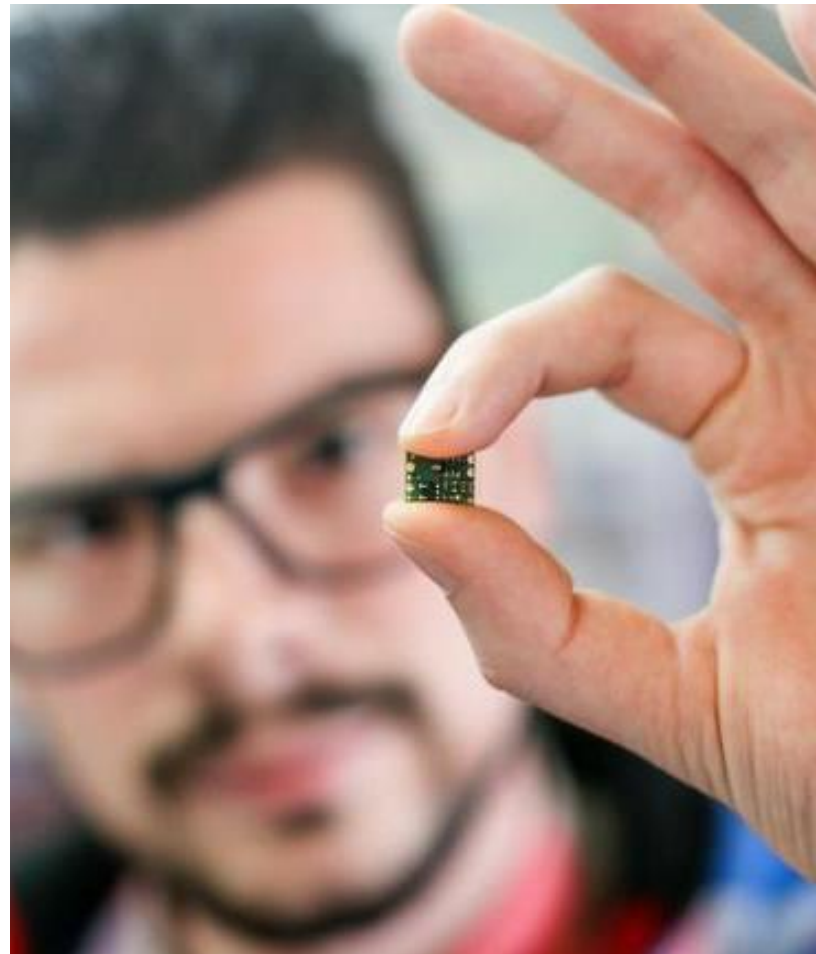


Admission requirements

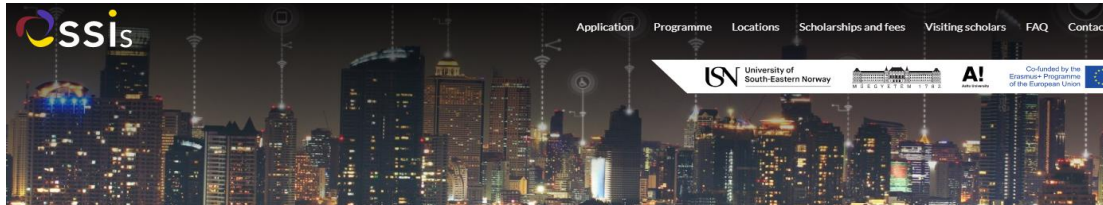
Bachelor's degree in engineering in micro- and nanosystems technology, electronics, electro automation, mechatronics, mechanical, chemical, bioengineering or materials science or closely related areas.

- At least 25 ECTS in Mathematics
- At least 5 ECTS in Statistics
- At least 7,5 ECTS in Physics
- At least 5 ECTS in Electrical Circuits
- Have a minimum grade average comparable to a Norwegian C
- English requirements (IELTS 6.0/TOEFL 80)

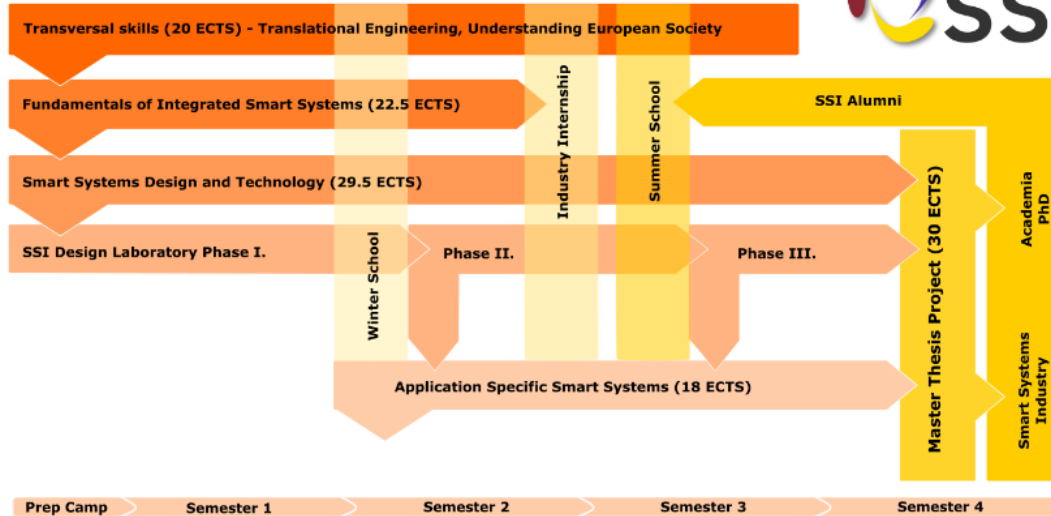
EU/EEA applicants may apply from 1 February to 15 April



Joint Master in Smart Systems Integrated Solutions



SSiS EMJMD Education Model 120 ECTS



Aalto University (Finland)



University of South-Eastern Norway (Vestfold)



Budapest University of Technology and Economics (Ungarn)



PhD in Technology

At department of Microsystems the research is focused on Applied Micro and Nano Systems, some examples of topics:

- Micro optics (MOEMS)
- Sensor technology
- Ultrasound
- RF MEMS
- BioMEMS
- Fabrication, Integration and Packaging Technology



Currently ~30 students within the field of Micro and Nano Systems

<https://www.usn.no/english/research/postgraduate-studies-phd/our-phd-programmes/technology/>





www.usn.no